DOCKET NO.: 242215US/cas

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: Hirohito SUDA et al.

GROUP: 2617

SERIAL NO: 10/654,961

EXAMINER: Fred A. Casca

FILED: September 5, 2003

FOR: MOBILE TERMINAL, CONTROL DEVICE, COMMUNICATION SYSTEM AND COMMUNICATION METHOD

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Applicants request review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a Notice of Appeal.

The review is requested for the reason(s) stated on the attached sheet(s). No more than five (5) pages are provided.

I am the attorney or agent of record.

Respectfully Submitted,

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DOCKET NO: 242215US

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF	:	
HIROHITO SUDA ET AL	:	EXAMINER: FRED A. CASCA
SERIAL NO: 10/654,961	:	
FILED: SEPTEMBER 5, 2003	:	GROUP ART UNIT: 2617
FOR: MOBILE TERMINAL CONTROL DEVICE, COMMUNICATION SYSTEM AND COMMUNICATION METHOD	:	

REMARKS ACCOMPANYING PRE-APPEAL BRIEF REQUEST FOR REVIEW

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

SIR:

Applicant respectfully requests that a pre-appeal brief conference be initiated in accordance with the pilot program outlined in the Official Gazette Notice of July 12, 2005.

FAILURE TO PRESENT A *PRIMA FACIE* CASE OF ANTICIPATION

Applicant submits that the Official Actions of March 29, 2006 and November 28, 2005 have failed to provide a *prima facie* case of anticipation with respect to any of Claims 9-15 under 35 U.S.C. § 102.[1] Pending Claims 9-15 stand rejected under 35 U.S.C. § 102(b) as anticipated by Pombo. As outlined in detail in the responses filed on February 28, 2006 and September 16, 2005, this rejection is deficient in that Pombo does not disclose or suggest using ***both*** of the reception state and the movement state for controlling the reception period

[1] See Official Action of June 1, 2005 and Advisory Actions dated September 21, 2005 and November 18, 2005 detailing the rejection of Claims 1-42 under 35 U.S.C. § 102(b) as being anticipated by Togashi et al. (JP 2000-214990, hereinafter Togashi).

of a control signal (i.e., a period corresponding to the control channel search period) as recited in independent Claims 9, 12, 14 and 15.

Briefly recapitulating, Claim 9 is directed to a mobile terminal including a transmitter/receiver configured to transmit/receive a signal to/from a base station; a reception state measurement unit configured to measure a reception state of the signal from the base station received by the transmitter/receiver; and a movement state measurement unit configured to measure a movement state of the mobile terminal. The mobile terminal also includes a reception period controller configured to control a reception period for receiving a control signal transmitted from a base station by the transmitter/receiver, based on a reception state measurement result and a movement state measurement result. Independent Claims 12, 14 and 15 are directed to a corresponding control device, system and method, respectively.

A non-limiting example of the present invention as disclosed in the Specification is next explained. In Applicants' invention, if the reception period (being the control channel search period) would only be controlled by the practically measured reception state, the following situation can occur. For example, if the reception state is measured in the location close to the base station, the reception state measurements will be good. In response to the good measurements, the reception period (control channel search period) will be lengthened. However, if the mobile terminal is close to the base station, but moves at high speed, it is possible that the mobile terminal will move into a different cell covered by a different base station before the mobile terminal would be able to search the control channel for the next reception period. Accordingly, a problem would occur, if the determination of the period length would solely rely upon the reception state measurement.

In addition, if the control channel search period would only be determined based upon the practically measured movement state, another problem may arise, as next described. For example, if the mobile terminal does not move at all, the control channel search period would

be lengthened. However, in the case were the mobile terminal is located at the border of a plurality of cells, the frequency of changing the choice of the optimum base station, being the connecting base station, will increase, since the radio reception would tend to change frequently. Therefore, there would be a problem if the mobile terminal cannot immediately find the optimal base station as the connecting base station, if the control channel search period is only based on the movement of the mobile terminal.

According to the present invention, the above described problems are solved by using the combination of both the measurement of the reception state of the base station signal and the measurement of the movement state of the mobile terminal, to control the reception period (the control channel search period). Further, the combined measurements improve the accuracy of the control of the reception period (the control channel search period).

Turning now to the applied reference, Pombo describes a method and apparatus for reducing power consumption in a portable communications device by ***predicting*** a user's location, movement and actions. Among other features, Pombo describes the predicting of a user's location and/or movement based in user's ***past communication activity***, also describes the prediction of the time when the user needs to communicate based on the past communication activity.

Pombo further describes that historical records of control channel and call activity are maintained in a memory 117 at the communications device 104 in order to predict calls. This permits the communications device 104 to conserve power in the battery 120 when no call activity is likely. The stored data is also used to predict what control channel should be scanned to search for a nearby base station 102. This permits the communications device 104 to scan a reduced number of control channels and reduce the time necessary for powering up the receiver 108 of the communications device 104.[2] In particular, Pombo discloses the

[2] Pombo, Abstract.

technical feature that "predicting a user's location, movement and time the user need to communicate based on the user's past communication activity which have been recorded in advance" and "controlling a control channel search period based on the number of control channel consecutively received, which is transmitted through the same channel."

Applicants note that Pombo further describes, to enhance user convenience that the invention of Pombo operates to reduce consumption of energy stored in a battery 120 by powering down or removing power from elements of the mobile station when those elements are not in use. There are three main processes which may be combined to reduce power consumption. One of the processes predicts user location. A second process predicts user movements. A third process ***predicts when the user needs to communicate.***[3]

Regarding the process which predicts when the user needs to communicate, Pombo recites that predicting when the user needs to communicate allows a mobile station to enter a very low power mode or continuous sleep mode.[4] A sleep time is set equal to the difference between a next call time and a current time. The next call time is determined by predicting from a data stored in a call activity table when a next call is likely to be made by the user.[5]

However, the prediction of when a user needs to communicate in Pombo does ***not*** correspond to Applicants' claimed measuring a reception state of a signal from a base station received by a transmitter/receiver. The need to communicate is based on a prediction, not a signal from the base station. Thus, the controller of Pombo is ***not*** configured to control a reception period for receiving a control signal transmitted from the base station by the transmitter/receiver ***based on a reception state measurement result determined by the reception state measurement unit.***

The Advisory Action of March 29, 2006 asserts that Applicants' claimed "reception state" and "movement state" corresponds to the "received signal strength (RSSI)" and

[3] Pombo column 5, lines 1-23.
[4] Pombo column 6, lines 8-10.
[5] Pombo column 11, lines 14-19.

"predicted user's (mobile station's) movement of Pombo, respectively. The Advisory Action further asserts that Pombo discloses Applicants' claimed technique for using the RSSI and the predicted user's movement in order to control the control channel search period.

However, as noted in Applicants' response of February 28, 2006 and September 16, 2005, Applicants' control channel search period is controlled based on a result of measuring the current reception state as well as the result of measuring the current movement rate. Pombo only uses RSSI for determining if the mobile is moving from the current base station to an adjacent base station,[6] and not for controlling a control channel search period. In other words, Pombo does not disclose or suggest controlling a control channel search period based on a result of measuring the current reception state. Because of this, Pombo also does not disclose or suggest controlling a control channel search period based on the combination of a result of measuring the current reception state and a result of measuring the current movement rate as recited in Applicants' independent claims.

CONCLUSION

Based on its clear legal deficiency in the above-noted rejection, Applicants respectfully request that prosecution be reopened.

Respectfully submitted,

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[6] Pombo, column 5, line 65 – column 6, line 7.